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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,065	04/14/2004	Karl J. Duyck	0174-PA-CIP	7216
7590 Michael P. Dilworth CROMPTON CORPORATION Benson Road Middlebury, CT 06749			EXAMINER GOLOBOY, JAMES C	
			ART UNIT 1714	PAPER NUMBER
			MAIL DATE 05/17/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/825,065

Applicant(s)

DUYCK ET AL.

Examiner

James Goloboy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11-19, 21-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-19, 21 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The objection set forth in the office action mailed 12/4/06 has been withdrawn in light of applicant's amendments.

Claim Rejections - 35 USC § 102

2. Claims 1, 3-4, 7-9, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Wheeler (U.S. Pat. No. 5,268,394).

The rationale for this rejection is adequately set forth in paragraph 3 of the office action mailed 12/4/06. New claim 21 is rejected for the reasons discussed in the prior office action.

Claim Rejections - 35 USC § 103

3. Claims 1-9, 11-19, and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wheeler in view of Deetman (U.S. Pat. No. RE37,101) in light of the evidence provided by Downs (U.S. Pat. No. 5,310,491).

The rationale for this rejection is adequately set forth in paragraph 6 of the office action mailed 12/4/06. New claim 22 is rejected for the reasons discussed in the prior action. In response to applicant's concern that the references have not been applied to the method claims, it is re-stated that Wheeler in view of Deetman in light of the evidence provided by Downs teaches that the acridan/diphenylamine compositions of claims 11-20 and 22 are useful as antioxidants, and therefore it would have been

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obvious to one of ordinary skill in the art to add the compositions to a lubricating oil in order to reduce the susceptibility of the lubricating oil to oxidation.

Response to Arguments

4. Applicant's arguments filed 3/5/07 have been fully considered but they are not persuasive.

Regarding the claims rejected as anticipated by Wheeler, applicant argues that Wheeler only teaches the use of acridans that have been separated from the diphenylamine employed in the manufacture. Component B of claim 1 is recited as a product-by-process claim. Although the product of Wheeler is formed by a different process, the final product is the same. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). See MPEP 2113. Applicant argues that the process recited in claim 1 is more economical than the process of Wheeler, but such secondary considerations are irrelevant to rejections under 35 USC 102. Applicant has not shown the criticality of using residual diphenylamine in the antioxidant composition. While new claim 21 is not written in product-by-process form, applicant still has not shown any

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structural difference between the residual diphenylamine used in the claim and the diphenylamine used in composition of Wheeler.

Regarding the claims rejected as obvious over Wheeler in view of Deetman in light of the evidence provided by Downs, applicant again argues that applicant argues that Wheeler only teaches the use of acridans that have been separated from the diphenylamine employed in the manufacture, and that the method of claims 1-9, 11-19, and 21-22 is more economical than the process of Wheeler, Deetman, and Downs. The reasoning discussed in the previous paragraph applies to the composition claims here as well. The method claims 11-19 and 22 recite a method of reducing the susceptibility of a lubricant to oxidation by adding an antioxidant mixture to the lubricant. Wheeler and Deetman teach an antioxidant mixture with an identical composition, therefore rendering obvious the addition of the mixture to the lubricant to reduce its susceptibility to oxidation. Applicant's argument regarding the origin of the diphenylamine in the antioxidant composition applies to the preparation of the antioxidant, but not to the actual process step recited in claims 11-19 and 22, which is the addition of the antioxidant to the lubricant. Additionally, applicant merely asserts without evidence that the claimed process has economic advantages over the process of Wheeler, apparently because Wheeler requires the fractional distillation of the product. Applicants have not actually claimed a specific process for reacting the alkylated diphenylamine with a ketone or aldehyde, so the cost of the applicant's process versus the process of Wheeler cannot be judged. The examples of the processes used to produce the compositions of current claims given on pages 19-20 of the specification also require

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the product to be isolated from a reaction mixture by the rotary evaporation of an organic phase. There is no indication that this is any more economical than the distillation taught by Wheeler. One of the processes taught in the specification requires high pressures, which may also add cost to the process through the use of reaction vessels able to withstand these pressures. Without evidence and without a specific reaction process recited in the claims, there is no support for applicant's allegation that the claimed process of forming the antioxidant mixture is more economical than that of Wheeler.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Goloboy whose telephone number is 571-272-2476. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

James C. Goloboy
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